

CLAIMS

1. A data processor for receiving a data stream, including a plurality of packets, and playing back a content concurrently based on content data stored in the packets,

5 each said packet having an identifier, the content data including a first code, which specifies a data location of a first portion of the content, and a second code, which specifies a data location of a second portion thereof,

the data processor comprising:

10 a dummy packet processing section, which makes a plurality of dummy packets, each having a dummy identifier that is different from any of the identifiers of the packets, and which generates a playback stream, including the dummy packets at predetermined intervals, based on the data stream
15 received;

a detecting section for detecting any of the dummy identifiers by scanning the identifiers of the respective packets of the playback stream and then outputting a first detection signal upon detecting the first code and a second
20 detection signal upon detecting the second code, respectively;

a switch, which receives the playback stream and which selectively passes the content data representing the first portion of the content in accordance with the first and second detection signals; and

5 a decoding section for playing back the first portion of the content based on the output of the switch.

2. The data processor of claim 1, wherein the dummy packet processing section generates the playback stream by
10 inserting the dummy packets into the data stream at time intervals as defined by the playback duration of a given picture.

3. The data processor of claim 1, wherein after having
15 detected the second code, the detecting section detects the next dummy identifier by scanning the identifiers of the respective packets.

4. The data processor of claim 1, further comprising an
20 extracting section for continuously extracting, as a

plurality of partial streams, a number of portions of at least one data stream from a storage medium on which the data stream is stored,

wherein the dummy packet processing section inserts the
5 dummy packet with the dummy identifier into each data location at which two of the partial streams are connected together.

5. The data processor of claim 1, wherein the dummy
10 packet processing section generates the playback stream by inserting the dummy packet into the data stream upon the detection of the second code.

6. The data processor of claim 1, wherein the data
15 processor receives at least two data streams, including the data stream and each having the content data about a program, and

wherein the data processor further includes a channel selecting section for selecting one of the data streams, and

20 wherein upon the detection of the second code, the

channel selecting section switches a first data stream, which has been received until the second code is detected, into a second data stream, and

wherein the dummy packet processing section generates a
5 playback stream in which the dummy packet is provided at a data location where the first data stream is switched into the second data stream.

7. The data processor of claim 6, wherein the dummy
10 packet processing section generates the playback stream by replacing the packets of the first data stream, which follow the packet with the second code, by the dummy packets and then connecting the second data stream to the first data stream.

15 8. The data processor of claim 1, wherein the data stream includes compressed content data, and

wherein the decoding section plays back the first portion of the content by decoding the content data.

20 9. The data processor of claim 8, wherein the content is

related to video to be presented by switching a plurality of pictures one after another, the content data having been compressed by a bidirectional predictive coding method, and

wherein the detecting section detects a picture header
5 code of an I-picture as the first code and a picture header
code of the next picture, following the I-picture, as the
second code, respectively.

10. The data processor of claim 1, wherein the detecting
10 section detects, as the first code, at least one of a picture
header code, a PES header code, a sequence header code, and a
group of pictures (GOP) header code, and, as the second code,
the same type of code as the first code, respectively.

15 11. A data processing method for receiving a data
stream, including a plurality of packets, and playing back a
content concurrently based on content data stored in the
packets,

each said packet having an identifier, the content data
20 including a first code, which specifies a data location of a

first portion of the content, and a second code, which specifies a data location of a second portion thereof,

the method comprising the steps of:

making a plurality of dummy packets, each having a dummy
5 identifier that is different from any of the identifiers of
the packets;

generating a playback stream, including the dummy packets
at predetermined intervals, based on the data stream received;

detecting any of the dummy identifiers by scanning the
10 identifiers of the respective packets of the playback stream
and then outputting a first detection signal upon detecting
the first code and a second detection signal upon detecting
the second code, respectively;

receiving the playback stream and selectively passing
15 the content data representing the first portion of the
content in accordance with the first and second detection
signals; and

playing back the first portion of the content based on
the output of the switch.

12. The data processing method of claim 11, wherein the step of generating the playback stream includes generating the playback stream by inserting the dummy packets into the data stream at time intervals as defined by the playback duration
5 of a given picture.

13. The data processing method of claim 11, wherein the step of outputting the detection signals includes detecting the next dummy identifier by scanning the identifiers of the
10 respective packets after having detected the second code.

14. The data processing method of claim 11, further comprising the step of continuously extracting, as a plurality of partial streams, a number of portions of at
15 least one data stream from a storage medium on which the data stream is stored,

wherein the step of generating the playback stream includes inserting the dummy packet with the dummy identifier into each data location at which two of the partial streams
20 are connected together.

15. The data processing method of claim 11, wherein the step of generating the playback stream includes generating the playback stream by inserting the dummy packet into the data stream upon the detection of the second code.

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16. The data processing method of claim 11, wherein there are at least two data streams to receive, including the data stream, each said data stream having the content data about a program, and

10 wherein the data processing method further includes the step of selecting one of the data streams, and

wherein the step of selecting includes switching a first data stream, which has been received until the second code is detected, into a second data stream upon the detection of the
15 second code, and

wherein the step of generating the playback stream includes generating a playback stream in which the dummy packet is provided at a data location where the first data stream is switched into the second data stream.

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17. The data processing method of claim 16, wherein the step of generating the playback stream includes generating the playback stream by replacing the packets of the first data stream, which follow the packet with the second code, by the dummy packets and then connecting the second data stream to the first data stream.

18. The data processing method of claim 11, wherein the data stream includes compressed content data, and wherein the step of playing includes playing back the first portion of the content by decoding the content data.

19. The data processing method of claim 18, wherein the content is related to video to be presented by switching a plurality of pictures one after another, the content data having been compressed by a bidirectional predictive coding method, and

wherein the step of outputting the detection signals includes detecting a picture header code of an I-picture as the first code and a picture header code of the next picture,

following the I-picture, as the second code, respectively.

20. The data processing method of claim 11, wherein the
step of outputting the detection signals includes detecting,
5 as the first code, at least one of a picture header code, a
PES header code, a sequence header code, and a group of
pictures (GOP) header code, and, as the second code, the same
type of code as the first code, respectively.